

What is claimed is:

1. A respirator hood to be worn on the head of a user to provide a supply of breathable air to a face region of the user, the hood having an air chamber arranged in an upper portion to extend over and above the head of a user, the air chamber having an inlet connectable to a source of breathable air and an outlet arranged to deliver breathable air to a face region of the user, wherein the air chamber defines a collapse-resistant air duct between the inlet and outlet.
2. The respirator hood of claim 1, wherein the air chamber covers substantially the whole of the region of the hood above the head of the user and provides support at the perimeter of the hood for a visor that covers at least the face of the user.
3. The respirator hood of claim 2, wherein the visor is restricted to the face region of the user only.
4. The respirator hood of claim 2, wherein the visor extends around the head of the user to enclose fully of the head.
5. The respirator hood of claim 2, wherein the visor comprises a transparent or translucent portion of the hood through which the user can see.
6. The respirator hood of claim 2, wherein the visor forms at least part of a side wall of the hood.
7. The respirator hood of claim 6, wherein the visor is formed integrally with the side wall.
8. The respirator hood of claim 6, wherein the visor is formed separately from the side wall.
9. The respirator hood of claim 8, wherein, the visor is detachably mounted in an opening in the side wall.

10. The respirator hood of claim 1, wherein the air chamber comprises an outer wall of the hood and an inner wall secured to the outer wall around a perimeter edge of the hood to define the air duct therebetween.

5 11. The respirator hood of claim 10, wherein the outer wall and inner wall of the air chamber are made of transparent or translucent material.

12. The respirator hood of claim 10, wherein the outer wall and inner wall are shape stable.

13. The respirator hood of claim 10, wherein the inner wall is shape stable and the outer wall is non-shape stable.

10 14. The respirator hood of claim 10, as wherein the side wall is shape stable.

15 15. The respirator hood of claim 10, as wherein the side wall is non-shape stable.

16. The respirator hood of claim 12, wherein the shape stable walls are made of a plastics material selected from the group comprising polypropylene (PP), polyethylene terephthalate (PET), polyethylene terephthalate glycol (PET-G) and polycarbonate (PC).

17. The respirator hood of 13, wherein the non shape stable walls are made of polyurethane (PU) or polyvinylchloride (PVC).

18. The respirator hood of claim 10, wherein the outer wall is a top wall of the hood.

20 19. The respirator hood of claim 18, wherein the top wall and inner wall of the air chamber are permanently secured together.

20. The respirator hood of claim 19, wherein the side wall is permanently secured to the top wall and inner wall.

25 21. The respirator hood of claim 18, wherein the top wall and inner wall of the air chamber are releasably secured together.

22. The respirator hood of claim 21, as wherein the side wall is permanently secured to one of the top wall and inner wall.

23. The respirator hood of claim 22, wherein the side wall is permanently secured to the top wall of the air chamber and the inner wall of the air chamber is
5 releasably located and secured within the hood.

24. The respirator hood of claim 12, wherein the inlet and outlet are provided in the inner wall of the air chamber.

25. The respirator hood according to claim 24, wherein an air supply line is connectable to the inlet within the hood.

10 26. The respirator hood of claim 12, wherein the top wall and inner wall of the air chamber are secured together around the perimeter of the hood and are spaced apart inwardly of the perimeter.

15 27. The respirator hood of claim 26, wherein the air duct extends across the whole area of the hood above the head of the user and is not confined to the peripheral edge region of the hood.

28. The respirator hood of claim 12, wherein the top wall and inner wall of the chamber are provided with smooth internal surfaces shaped to direct the flow of air from the inlet to the outlet without any sharp or sudden changes in direction.

20 29. The respirator hood of claim 28, wherein the inlet opens into the air chamber to assist the air flow to spread out within the air chamber.

30. The respirator hood of claim 29, wherein the top wall and inner wall of the chamber are dome-shaped to provide the upper portion of the hood with a recessed area open to the underside over the head of the user.

25 31. The respirator hood of claim 30, wherein the inlet and outlet are provided on opposite sides of the dome-shaped portion of the inner wall.

32. The respirator hood of claim 30, wherein the inlet is provided at the rear and the outlet is provided at the front of the dome-shaped portion of the inner wall.

33. The respirator hood of claim 32, wherein the inner wall is shaped to form a channel extending around the front of the dome-shaped portion with the outlet being
5 arranged in the side of the channel facing the side wall of the hood.

34. The respirator hood of claim 1, wherein the outlet comprises at least one elongate slot.

35. The respirator hood of claim 1, wherein the outlet comprises a plurality of holes.

10 36. The respirator hood of claim 35, wherein the holes are arranged in a symmetrical array comprising a central hole and at least one pair of holes on opposite sides of the central hole.

37. The respirator hood of claim 36, wherein the holes are all of the same size.

15 38. The respirator hood of claim 36, wherein the size of the holes decreases progressively on each side of the central hole.

39. The respirator hood of claim 1, wherein the outlet is formed in a portion of the air chamber that is inclined to direct the air flow away from the face region of the user.

40. The respirator hood of claim 39, wherein the inclined portion extends at an angle of 15 to 60 degrees relative to a front wall of the hood.

20 41. The respirator hood of claim 40, wherein the inclined portion extends at approximately 45 degrees.

42. The respirator hood of claim 25, wherein the inlet is releasably connectable to the air supply line.

25 43. The respirator hood of claim 25, wherein the inlet is permanently connected to the air supply line.

44. The respirator hood of claim 1, wherein the source of breathable air is a portable supply carried by the user.

45. The respirator hood of claim 44, wherein the portable source is a turbo unit including a fan driven by a battery powered motor and a filter.

5 46. The respirator hood of claim 1, wherein the source of breathable air is a remote source separate from the user.

10 47. A respirator hood to be worn on the head of a user to provide a supply of breathable air to a face region of the user, the hood having an air chamber in an upper portion above the head of the user, the air chamber having an upper wall and a lower wall defining an air duct therebetween, the lower wall having an inlet connectable to a source of breathable air and an outlet for delivery of breathable air to a face region of the user wherein at least one of the upper and lower walls has a stable profile to maintain the shape of the air duct.